STANDARD CORRECTIVE ACTION TASK NAMES

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Air Analysis/w/fee - This task consists of all laboratory costs associated with an air sample. Included with the task is the PTRCB sampling fee of \$10.00 for the management of the sample including sample container, cooler, packing, shipping, handling, sample preservation and office related charges. The sampling fee is reimbursable based on the quantity of lab numbers assigned by the laboratory.

Debris disposal - This task consists of labor, equipment and material associated with the disposal, within a landfill/landfarm, of debris generated as a result of abatement of a release. Debris may include, but is not limited to asphalt, concrete, and or other non-soil material. This task is occasionally utilized when the debris is disposed of separately from the contaminated soil.

Debris removal -This task consists of labor, equipment & material necessary for the removal of the debris from the remediation site to the disposal facility

Drill rig mobilization - This task includes all costs to transport the drill rig to and from the facility. This item should be on a per mile basis.

Drill support rig mobilization - Includes all costs for movement of drill support rig vehicle to and from the site location. This item should be on a per mile basis.

Excavation - This task consists of the removal and replacement of contaminated soils. Yardage removed is dependent on site conditions. The task includes personnel and equipment necessary to remove the soil, segregation of clean and contaminated soils, backfill and compaction. The contaminated soil is hauled to a landfarm or landfill. Backfill may consist of clean soils removed and imported soils. Debris disposal and removal may be included in the costs per unit.

Feasibility study - This task is the mechanism for the development, screening and detailed evaluation of alternative remedial actions generally conducted concurrently with a remedial investigation.

Fieldwork - A generic task description that is utilized to describe activities incurred in the field and can not be attributed to any other task description.

Free product bail down test - This task consists of labor and material necessary to determine the parameters associated with volumes, movement and recovery of free product.

Free product level measurements - This task consists of labor and materials associated with determining the elevation and thickness of a petroleum product floating on the surface of the water table.

Groundwater analysis/w/fee - This task consists of all laboratory costs associated with a groundwater sample. Included with the task is the PTRCB sampling fee of \$10.00 for the management of the sample including sample container, cooler, packing, shipping, handling, sample preservation and office related charges. The sampling fee is reimbursable based on the quantity of lab numbers assigned by the laboratory.

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Landfarm/Landfill - Landfarming involves spreading excavated contaminated soils in a thin layer on the ground surface and stimulating aerobic microbial activity within the soils through aeration and/or the addition of minerals, nutrients, and moisture. Landfill involves the placement of contaminated soils in an area that has been engineered to prevent the leaching of contaminants into the groundwater.

Lodging - The task is the actual costs of lodging incurred by a contractor when an overnight stay is required.

Miscellaneous - This generic task description is utilized to describe activities, not in the field environment, that can't be attributed to any other task description.

Mobilization - This task includes all costs and mileage to transport equipment, materials, and personnel to and from the site location. This item is on a per mile rate.

Modeling - This task is limited in scope to the actual labor hours expended in data input, running the model and analysis to the results. This task does not included the costs of the model.

Monitoring - This task is typically the labor and equipment for groundwater monitoring, purging and sampling. Typically the equipment used for purging will consist of a pump, generator, bailers, ropes, organic vapor analyzers, and pH/temperature/conductivity meter(s). For non-purge, the items may consist of bailers, ropes, and pH/temperature/conductivity meter(s). The unit costs for monitoring are usually dependant on site conditions, depth and size of wells and number of wells to be monitored.

Monitoring report - This task consists of labor and material costs for the preparation of a monitoring report. This task description can be used to describe the monitoring of systems or groundwater sampling events.

Monitoring well installation - This task consists of labor, equipment and materials for the installation of a monitoring well utilizing drilling or push-probe techniques. The task consists of a cost per foot for wells installed in accordance with Montana water well construction standards. Costs are based on installation using schedule 40 PVC casing and of well screen. The work typically includes soil sampling at intervals of five to ten feet; decontamination procedures; sampling equipment; moving between wells; brass sleeves and associated sample collection and preservation materials; drilling consumables/bits; well installation and materials. Additional costs associated with task might include concrete coring or drilling a nested well configuration. Generally, soil borings are a subset of monitoring well installation.

Monitoring Well Development - This task consists of labor, equipment and materials to develop a well by surging and bailing and/or pumping until a visibly non-turbid discharge is obtained or until continued bailing produces no further improvement in water clarity. Wells containing measurable free product are not normally developed.

Per Diem -This task is the actual cost of meals at the rates set forth in 2-18-501, MCA, for state employees traveling within the state. The computation of time for purposes of determining meal allowances must be made in according to 2-18-502, MCA.

Permits - This task consists of the costs necessary to obtain special discharge permits. Tank removal or system modification permits are not reimbursable by the fund.

Pilot test - This task consists of labor and equipment in testing whether or not a remediation system can be utilized on a site for clean up. A firm may be requested by a regulatory agency to perform a test, such as with an SVE (Soil Vapor Extraction System) prior to authorizing its use for clean up. If a test is successful full implementation of the system may be required at a later date.

Project management -This task is the process of creating, monitoring, and controlling the scope of work, schedule and budget of all phases of environmental work. The project manager creates and manages the project team, which is composed of all project participants. The project manager acts as the focal point of communications and coordinates project team efforts, ensuring that project participants work together to accomplish the project. Task includes communications with the owner/operator and agency.

Receptor survey - This task consists of labor spent on identification of potential receptors in and around the facility that may pose a threat to human health from vapor or water contamination as a result of soil or groundwater concentrations. The survey should be an accurate reflection of the actual risks posed to human health. Prioritization criteria should be focused on medium to high-risk features. Because the total number of high and medium risk features is typically low, identification and evaluation should not be a labor-intensive task.

Report -This task consists of all personnel and material costs to prepare a report for the specific category of corrective action plan. In addition to this task name, there is a monitoring report that should be utilized when appropriate.

Site mapping - This task consists of labor and equipment to accurately plot well locations, utilities and other physical features pertinent to a remediation site. Well locations must be plotted onto a site diagram to graphically represent their relative location at the site. This can be as simple as using a tape measure for smaller sites, or as complex as subcontracting these services for larger or more complex sites.

Site restoration -The task consists of all labor and material costs necessary to return a facility to pre release activities.

Slug field test -This task consists of all personnel time and equipment necessary to perform aquifer slug test to determine hydraulic characteristics.

Soil analysis/w/fee -His task consists of all laboratory costs associated with a soil sample. Included with the task is the PTRCB sampling fee of \$10.00 for the management of the sample including sample container, cooler, packing, shipping, handling, sample preservation and office related charges. The sampling fee is reimbursable based on the quantity of lab numbers assigned by the laboratory

Soil borings - This task is to be utilized when soil boring are performed to determine the extend of contamination in the soil. *If the soil borings are converted to monitoring wells, the task monitoring well construction should be utilized.* This costs is generally stated in a cost per foot of soil boring. This task is limited to the actual cost per foot of the soil boring

Study - This task consists of labor utilized on an investigation of a problem to ascertain whether or not a proposed approach is likely to be successful at remediation of contamination at a facility. Often associated with the identifying preliminary alternative for remedial actions feasible at the site.

System design - This task consists of selecting and designing a system that includes data evaluation, design of system, preparation of a detailed construction drawing and specifications, drafting, soliciting and evaluating bids for equipment, coordination with agencies and final review.

System evaluation - This task consists of labor and equipment for testing and evaluating a system after the installation phase to evaluate performance. This may be an ongoing process throughout the time frame in which the system is operating as requested by the regulatory agency.

System installation - This task consists of coordination and oversight for the installation and start-up of a system. This assumes that oversight is being provided by a consultant for installation of the system, including coordination with contractors/subcontractors, regulatory agency liaison and inspection/observation during construction of the system and initial start-up.

System modification - This task consists of labor, equipment and possibly materials necessary for the modification of an installed remediation system. The regulating agency may request that the consultant modify a system to enhance cleanup abilities at a site.

System operation & maintenance - This task includes labor, equipment and materials, necessary to properly operate and maintain a remediation system. Task activities may involve project management, regularly scheduled system checks, periodic sampling events, monthly electrical service fees, routine repairs such as rebuilding motors, regular maintenance such as disposal of treated groundwater, disposal of recovered product, air stripper cleaning, draining knockout tanks, system winterizing and expendable items such as an air compressor filter, skimmer belt or activated carbon exchange.

System removal - This task includes labor, equipment and material costs necessary for removal of a remediation system. Once the system has completed its usefulness at a site, a determination may be made by the regulating agency and consultant to remove the system. Once the system is removed from petroleum fund eligible sites, the owner has three choices in accordance with Board policy:

- 1. Re-use the equipment on another site they own.
- 2. Transfer the equipment to the State of Montana, which will then sell the equipment through the Surplus Property Bureau with the proceeds of the sale returned to the Fund, or
- 3. The owner may sell the equipment to another individual for fair market value and reimburse a portion of the sale to the state.

System shut down -This task includes the time for personnel to temporarily shut down a system that has been operation due to weather or site conditions.

System start up - This task includes the time for personnel to start a system, which may occur after installation, modification or during different times of the year. Included in the cost, might be time on site to start and examination of the system and possibly base line sampling.

Tap water sampling -This task includes labor, equipment and material costs for sampling tap water, which may have been impacted by a release.

Treatment - This task is a grouping of techniques of dealing with contamination. Treatment techniques are biological, chemical, physical or thermal. Biological are typically land treatment/farming. Chemical treatments are solvent extraction, neutralization, and ultraviolet oxidation. Physical treatments are filtration, air stripping, soil washing, media filtration, oil/water separation, air sparging, carbon absorption, and vapor extraction. Thermal treatment is incineration, low temperature desorption and flaring.

Vapor monitoring - The task consists of all activities necessary to collect, analyze, and record data associated with testing for the presence of product vapors.

Water level measurements -This task includes all costs (labor, equipment, materials and well consumables) to measure groundwater depth, collect other groundwater information from a well, and decontaminate the equipment.

Well abandonment - This task includes labor, equipment and materials for the proper closure of monitoring/recovery, air sparging, soil vapor extraction, injection or bioventing wells in accordance with the Montana Department of Natural Resources and Conservation Requirements. Task activities will include removal of the manhole, protective cover, removal or filling of well casing, filling with bentonite or cement slurry and re-surface completion.

Well elevation survey - This task consist of the labor and equipment necessary to determine the elevation of a groundwater monitoring well.

Work plan -This task includes research, labor, administrative support, printing, drafting, and distribution costs associated with the preparation of a corrective action plan requested by the department of Environmental Quality.